DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-002359
Date Inspected: 14-May-2008

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 630
OSM Departure Time: 1530
Location: Changxing Island

CWI Name:	See below	**CWI Present:**	☑ Yes ☐ No
Inspected CWI report:	☑ Yes ☐ No ☐ N/A	**Rod Oven in Use:**	☐ Yes ☑ No ☐ N/A
Electrode to specification:	☑ Yes ☐ No ☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes ☐ No ☐ N/A	**Verified Joint Fit-up:**	☑ Yes ☐ No ☐ N/A
Approved Drawings:	☑ Yes ☐ No ☐ N/A	**Approved WPS:**	☑ Yes ☐ No ☐ N/A
		Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: Skin plates

Summary of Items Observed:

CWI Name: Wang Cheng Jun, Yang Yi Heng

"Push down" Heat straightening on skin plate (Tower bay#1 and bay #2) Caltrans Quality Assurance Inspector (QAI) observed few Zhenhua Port Machinery Co (ZPMC) heat straightening operators performed heat straightening with ZPMC Heat Straightening Report (HSR) on plate numbered P162B, P326N, P223A, P503A, P222A(S) and P222A(N). The heating temperature is maximum 650 C (1200 F) and cool in still air. All the plates have been monitored and recorded and inspected by ZPMC QC within from 0.5mm to 1mm off set (Caltrans requirement Max 3mm) after heat straightening to cooled to ambient temperature. Based on Caltrans QAI observation, no discrepancies were noted.

Submerged Arc Welding (SAW) process on skin plate (Tower bay#1 and bay#2): Caltrans QAI observed five ZPMC welding operators performed semi-automatic SAW on the splice weld of ASTM 709 345 skin plate numbered P1408E to SA296E with 65mm wall thickness, weld# SSD1-SA18A/E-3A, skin plate numbered P456 to P882 with 45mm wall thickness, weld# ESD1-SA107A/J-17A,skin plate numbered P312 to P311 with 90mm wall thickness, weld# SSD1-SA15A/F-32A, skin plated numbered P1309 to P1301 to P16 to P837 to P1302 with 80mm wall thickness, weld# SSD1-SA178C/D-14A-14B, SSD1-SA178C/D-10-12 and SSD1-SA178C/D-4A-4B. The weld designed is a double -V-groove with welding conducted in the in flat position (1G) with proper 4.8mm diameter wire feed electrode JW3 and flux/J1-B, made by China Company and completed with approximate five pass. The parameters used for SAW welding of splice weld was conducted in accordance with Caltrans approved WPS-B-T-2221-B-U3. The semi-automatic SAW was monitored and recorded by ABF Certified Welding Inspector (CWI) Miss. Xie Yan Mr. Wei Jiam Bo. Based on Caltrans QAI observations, no discrepancies were noted.

Flux Cored Arc Welding (FCAW) welding process on skin plate (Tower Bay#2): Caltrans QAI observed two

welders were performing FCAW process on splice weld of skin plate numbered P326S to P329S with 65mm wall thickness, weld# SSD1-SA159F/J-7A and skin plate numbered P326 to P329S with 65mm wall thickness, weld# SSD1-SA159F/J-12A. The parameters used for FCAW process of splice welds were conducted in accordance with Caltrans approved WPS-B-T-2231-B-U3-F. The electrode being used is super cored 71.H with 0.14mm diameter made by China Company. The FCAW process was monitored and recorded by ZPMC QC Inspector and ABF CWI. Base on Caltrans observation, no discrepancies were noted

Summary of Conversations:

As Note within the report above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Wahbeh Mazen (818)292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer